rhœal discharges, the chronic inflammation of the prostatic portion of the urethra, and of the neck of the bladder, can only be removed by cauterization. The author passes the nitrate of silver into the urethra, enclosed in a suitable instrument, and turns it very rapidly over the portion to be cauterized. It should remain in contact with the urethra the shortest time possible, and then be instantly withdrawn. After the application of the caustic, the discharge of urine becomes excessively painful for a day or two, and is sometimes a little tinged with blood. But after the pain has abated, the discharge of semen is suspended, the patient experiences a sensation of strength in the parts to which he had long been a stranger, and in a short time the urine becomes clear and quite free from any admixture of glairy fluid, while the general symptoms are rapidly ameliorated.

The successful results of M. Lallemand encourage us greatly, and henceforward, when the symptoms which have been mentioned exist, no practitioner should forget to inquire if a glairy, viscid fluid, is discharged while passing the last drops of urine, or when straining during evacuation of the bowels. By treating such patients judiciously, a class of cases are curable, which, under ordinary circumstances, are quite intractable. W. W. G.

Art. XV. *Medico-Chirurgical Transactions, published by the Royal Medical and Chirurgical Society of London, for* 1836. *Volume the twentieth.* London, 1837. 8vo. pp. 384.

The contents of the present volume of Medico-Chirurgical Transactions are, generally speaking, of so interesting a nature, that our readers, we are persuaded, will not be displeased should we present them with a more full analysis of it than is usual in bibliographical notices.

The first article is by Dr. J. Yelloly of London, being *Observations on Vascular Appearances of Mucous and Serous Membranes, as indicative of Inflammation.* In a former communication, inserted in the fourth volume of these Transactions, Dr. Y. endeavoured to show by a series of observations that

> "Appearances of vascular fulness in the villous coat of the stomach, whether florid or dark coloured, in distinct vessels, or in extravasations of different sizes, are not to be regarded as unequivocal marks of disease, inasmuch as they occur in every variety of degree and character, under every circumstance of previous indisposition, and in situations where the most healthy aspect of the organ is to be expected."
>
> "That such vascularity is entirely venous, though sometimes florid, and sometimes of a dark red; that it depends on a power capable of being exercised on the artery itself at the close of life, which carries on the blood to the veins, after the further supply of fresh blood from the heart is stopped, and that the branched or stellated form of vessels, under which the vascularity usually appears, is capable of being imitated, whether by injection of the veins with fine injection, or by forcing back with the finger, or the back of a scalpel, the blood from the larger branches of veins into the smaller.
>
> "The vascularity soon becomes diffused redness, by transudation through the coats of the containing vessels, just as happens with the bile in the gall bladder, or in the speedy production of a blue colour, when mesenteric arteries are injected with a solution of prussiate of potash, and the veins with that of green sulphate of iron."
>
> "That it is very difficult to ascertain, merely from the aspect of the vessels of a dead part, that they had been affected with inflammation during life, unless for the occurrence of unequivocal results of inflammatory action."

The object of the present communication of Dr. Yelloly is to illustrate and enforce the correctness of the foregoing propositions, in reference as well to the serous as to the mucous tissue. The illustrations are drawn chiefly from the writings of the continental physicians, more especially, however, from the *Précis D'Anatomie Pathologique* of M. Andral.

That mere vascular fulness or increased redness of a tissue, after death, is no conclusive indication of its having been the seat of inflammation, is now generally acknowledged; but that such an appearance is to be viewed in almost every instance as a cadaveric phenomenon, we are very far from being prepared to admit.

2. *History of a remarkable case of Varicose Aneurism, with Observations.* By J. G. Perry, Surgeon, &c.—This is not only a very remarkable, but a highly interesting case, showing that a true varicose aneurism may be produced by other causes than a wound penetrating through the vein into the subjacent artery. That such should be the case is certainly contrary to what has been inferred from the circumstances of all the cases heretofore recorded; while "the great indisposition manifested by blood-vessels, and especially veins, to partake of the ulcerative process, even when it may have involved all the surrounding tissues, rendered it very improbable that an opening would take place in the coats of one of the last mentioned vessels from any of the ordinary causes of absorption. Aneurisms of large arteries have often been seen to cause, by their pressure, absorption of all the solid structures around, without their accompanying veins becoming, in any degree, involved in the general havoc." The present case will, however, suffice to prove that such laws, though of *general*, are not of *universal* application. The patient, a man 47 years of age, was never a very strong man, and was discharged from the army, in 1819, on account of general ill health.

"He had no recollection of any accident having occurred to him except one, a few years before he left the army, when he and his horse were knocked down by the fall of a heavy piece of timber. His left knee was much hurt at the time, and had never since been as strong as the other, and sometimes had been so painful as to lead him to apply for surgical assistance.

"In the year 1831, being at that time employed in drawing a truck, he suffered for several months from pain in the foot, at its inner side, and matter formed, and was discharged from that part. Sometime in the course of the same year he first perceived a small swelling a little below his left knee, but it gave him no pain and he disregarded it. The swelling increased very slowly in size and troubled him very little, that he could recollect, for two or three years, except that occasionally, when drawing his truck, he was seized with pain in it to such a degree as to be obliged to stop for a few minutes from his work.

"About two years after the first discovery of the tumour, his wife accidentally perceived a *palpitation* (to use his own phrase) in the middle of the left thigh, which alarmed her very much, as she connected it in her mind with a palpitation he was then subject to about his heart, and which was sometimes so violent as to prevent him from doing any work. The patient himself, however, suffering no inconvenience from the condition of the thigh, paid no attention to it. The *palpitation* in the thigh went on increasing, as did also the swelling in the leg, nothing being done for their relief until February 6th, 1834, when he applied for admission into the infirmary."

On his admission an aneurismal tumour of considerable size was discovered at the upper part and inner side of the calf of the left leg, apparently occupying the lower end of the popliteal, or the commencement of the posterior tibial artery. The contents of the sac were so entirely fluid, that it could be almost emptied by pressure with the hand. Pulsation could be felt distinctly in the interior tibial artery as it passed over the tarsus, and obscurely in the posterior tibial, behind the internal malleolus. As the patient lay on his bed with the limb placed on its outer side, a very remarkable pulsation could be distinctly *seen* along the course of the femoral artery and vein, beginning about two inches below the crural arch, and terminating at the spot where the femoral vessels become included in the tendinous sheath formed by the triceps muscle. When the hand was laid upon any part of this region a very peculiar thrilling was perceived, occupying a space of at least two inches on either side of the vessels, but varying in intensity and force according to the distance of the part examined from them. This thrilling was quite distinguishable from the pulsation of the artery.

In consultation it was decided that the diseased state of the vessel rendered it inexpedient to place a ligature upon it, until the increase of the tumour in the ham should have brought the patient's life into immediate danger.

"Neither did the ligature of the external iliac artery promise a more successful event, since its pulsation could be felt and heard over so wide a space, that it also was conceived to be greatly dilated, if not decidedly aneurismal."

The relater of the case having accidentally discovered that by pressing the point of his finger upon a part of the artery immediately before it entered the sheath of the triceps, he could entirely stop the thrilling, without interrupting the circulation of the vessel, suspected the existence of a communication at this part between the artery and vein. The patient, however, constantly denied that he had ever received a wound in that situation, and no scar was visible on the skin. The treatment of the patient during his continuance in the infirmary, was confined to means adapted to diminish the force of the circulation, while rest in the recumbent posture was most strictly enjoined. Pressure, by means of a bandage extending from the foot nearly to the groin, was for some time persevered in, but was eventually abandoned on account of the uneasiness it occasioned.

"For this was substituted the more circumscribed pressure of a spring, resembling a truss, having at its extremity a small pad, intended to imitate, as nearly as possible, the pressure of the point of the finger, which was so effectual in restraining the thrill."

In this manner it was hoped that the presumed communication between the vessels would be obliterated, and such a condition of the parts produced as would justify the ligature of the femoral artery, for the cure of the aneurism in the ham, whilst it was thought possible that the retardation of the circulation through the artery might even afford occasion for the natural cure taking place in the sac.

After a residence of nine months in the infirmary, no change was observable in the condition of the diseased parts, and the patient at his urgent request was discharged, November 24, 1834. He was regularly visited until September, 1835, by the assistant surgeons of the institution, and occasionally by Mr. Perry, who was able to perceive no change in the size or other characters of the popliteal tumour; but the thrilling in the thigh became obviously diminished in force and extent, and could no longer be seen as before. The superficial veins of the leg became remarkably enlarged.

"These changes were sufficiently explained on dissection by the obliteration which was found to have been brought about in the vein, probably by the long continued pressure, and which, by diminishing the bulk of the circulating contents of the vessel, rendered that remarkable *bruissement* less obvious than before. The obliteration of the femoral vein also accounted for the enlargement of the superficial veins."

On the evening of the 9th of September, the patient applied to be readmitted into the infirmary, on account of the great and sudden enlargement of the tumour in the ham, which had taken place a few days before, preceded by much pain and throbbing. The tumour was nearly four times its former size, but still retained its original form; the skin which covered it was extremely tense, and presented, at its most prominent part, a livid discoloration, which seemed to threaten almost immediate sloughing. Great pain was felt in the tumour and down the leg, while the superficial veins were very much enlarged and distended with blood.

The certainty that the patient would perish from hemorrhage should the aneurism be allowed to slough, induced Mr. P. to give to him the slender chance presented by the ligature of the artery. The operation was accordingly performed on the following day in the usual situation.

"Upon dividing the integuments and sheath of the vessels, the artery was found to be enlarged nearly to the size of the abdominal aorta, and its coats so remarkably thin, that it presented more of the appearance of a vein than of an artery. Much difficulty being experienced in carrying the point of the needle round the artery, apparently from adhesion at its back part, and its extreme tenuity rendering it very hazardous to employ any degree of force, it was deemed adviseable to enlarge the opening in the sheath, and pass the ligature about half an inch higher up, which was effected without any difficulty. So attenuated and fragile were the coats of the vessel, that they actually gave way under the slight pressure made by the fingers of a gentleman, who held it with a view of assisting in the passage of the needle under it, and blood issued in a minute jet from its anterior surface. This accident made it necessary to observe the greatest caution in tightening the ligature, as it seemed not improbable that if drawn with ordinary force, it would completely divide the artery. The noose was, therefore, only drawn to a sufficient degree to stop the pulsation in the sac and lower portion of the artery, and as the bleeding from the small laceration before described immediately ceased, it was deemed that enough had been accomplished to stop the circulation through the vessel, and the wound having been closed by straps of adhesive plaster, the patient was carried back to bed."

It is unnecessary to detail the symptoms of the case between the operation and the night of the 15th of September, when a hemorrhage suddenly took place from the wound to a very large amount, inducing a state of syncope, from which the patient was with difficulty revived. The bleeding was on this occasion restrained by pressure on the wound, but recurred on the following day, when the patient sank exhausted, on the sixth day after the operation.

"*Dissection.*—The lungs were adherent in many parts to the costal pleura, and presented several old cavities which were cicatrized. The pericardium was universally adherent to the surface of the heart. The right auricle was large; right ventricle proportionably small; the left ventricle dilated and hypertrophied. The tricuspid and mitral valves were healthy, as well as those of the pulmonary artery and aorta. In the coats of the aorta, at its commencement, at the arch, and near its bifurcation, was deposited much of the atheromatous matter usually found in large arteries of aneurismal subjects. A single pointed spiculum of bone presented itself among the atheromatous matter at the arch. The aorta was much dilated about the origin of the arteria innominata, which vessel was unusually large. The abdominal aorta was rather thin in its coats.

"The external iliac arteries, especially the left, were extremely tortuous, being reflected upon themselves in a singular manner, during their course towards the crural arch; a condition which had, no doubt, given rise to the impression of the artery being extremely dilated, since it conveyed to the hand simultaneously the combined pulsations of the folded portions. The coats of the femoral artery, throughout its whole course, were scarcely, if at all, thicker than those of a vein, the attenuation having, as a careful dissection afterwards proved, taken place equally in all its coats. Immediately below the origin of the profunda the vessel was greatly dilated, having the appearance of an aneurismal sac. Its coats were here softened and much attenuated, and presented an aperture anteriorly, large enough to admit the point of the ring finger, from which the fatal hemorrhage had taken place. The ligature had been placed at a very short distance below this part of the vessel. The wound was full of coagulum, which had also made its way into the sartorious and surrounding muscles, and by its pressure had probably restrained the hemorrhage so as to prevent the patient from bleeding to death at its first access.

"At the spot in the thigh were the communication had been presumed to exist between the artery and vein, there was an aneurismal sac, about as large as half a walnut, firmly ossified within, which, by the pressure it had exerted upon the vein, had caused absorption of its coats, so as to form a circular opening of about two lines in diameter, into which the aneurism had burst; thus inducing a free and persistent communication between the vessels. Just below the aperture, the vein was obliterated at a single *point*, below which it was again pervious. In all the rest of its course up the thigh it was diminished in size and thickened."

The obliteration of the vein was no doubt caused by the use of the spring, which effectually compressed the vessel under the bony walls of the aneurism.

> "At the lower part of the popliteal artery, exactly at the point of division into the anterior and posterior tibial trunks, the vessel was dilated into a very large aneurismal sac, which contained a small quantity of laminated fibrine; but the greater part of its contents consisted of loose coagula and serum. The tibia formed part of the walls of the sac, and was partly absorbed, so as to present a scabrous surface. The posterior tibial artery opened *from* the sac, as the popliteal had opened *into* it, by a circular and even orifice. The anterior tibial could not be examined, as it was sacrificed in separating the tumour from the tibia."

3. *Case of Recovery from the Insensibility of Intoxication, by the performance of Tracheotomy.* By G. Sampson, Esq., Surgeon, Salisbury.—A man, 31 years of age, was brought to the surgeon in a state of complete insensibility from intoxication, the pupils being largely dilated, the breathing stertorous, and all voluntary motion having been lost for at least four hours. The stomach pump was used, and from three to four pints of fluid drawn off, appearing to consist chiefly of brandy; after which tepid water with ipecacuanha diffused in it was several times injected into the stomach, and after awhile withdrawn. These means failing to excite vomiting, a strong solution of salt in water, afterwards of the sulphate of zinc, were repeatedly tried, with no better result. The apoplectic symptoms seemed rather to increase; the pulse grew fainter, and at last was scarcely perceptible; the whole surface of the body was cold and clammy, and the patient was insensible to every kind of stimulus. It occurred to Mr. S. that the comatose state in which the patient lay might not arise from apoplexy, but from torpor of the brain, in consequence of that organ being supplied with blood not duly oxygenated; for "the shrill tone and extreme difficulty of respiration showed the existence of collapse of the glottis, and imperfect transmission of air into the lungs, which might be accounted for by a paralyzed state of the eighth pair of nerves and recurrent branches." Under the belief, therefore, that if a mechanical respiration were carried on for a time, the blood might regain its stimulant properties and restore the energies of the brain and nervous system, the operation of tracheotomy was performed.

> "The trachea was no sooner opened than the distension of the veins about the head and neck subsided, the violent efforts of the extra-respiratory muscles ceased, and in about half an hour regular and easy respiration through the wound was completely established; at the same time the pupils became slightly sensible to the stimulus of light, and the pulse returned to the wrist."

Directions were given for the frequent removal of the mucus which appeared at the wound. A piece of strong spring wire, with a bow at each end of it, was introduced into the orifice in a bent state; and being allowed to expand, the opening into the trachea was kept open and prevented from being covered by the muscles, even during the efforts of deglutition.

The patient passed a quiet night, and in the morning indicated by signs that he suffered from headache and soreness at the pit of the stomach; there was a tendency to sickness, and the tongue was coated with a peculiar whiteness, as if rubbed over with chalk. Moderate purgatives, followed by mild alkaline medicines, soon removed these symptoms, and a few leeches were applied to the throat to check too high a degree of inflammation; no further treatment was required. In about three weeks, the wound being healed, he was discharged cured, and has continued until now, a period of eight months, in perfect health.

4. *On the Treatment of Injuries received in Dissection.* By R. A. Stafford, Esq., Surgeon, &c.—Of this interesting and valuable paper we shall be able to give only a very brief notice, passing over entirely the histories of the several cases which it comprises. Mr. Stafford conceives that the phenomena resulting

from injuries received in dissection can only be satisfactorily accounted for on the supposition of the introduction of an animal poison.

"For," he remarks, "we find the most alarming and rapidly fatal cases to occur where there has been but a slight abrasion or scratch, as well as where a deeper wound has been inflicted by the point of the scissors, the hook, or the scalpel, so as to render questionable the probability of wounding the sheath of a tendon. Further, many cases are recorded in which no abrasion, scratch, incision, or puncture was noticed, or any evidence of such injury found on the most minute inspection of the part; consequently some deleterious poison must have been absorbed by the skin."

Mr. S. produces some remarkable instances of this mode of receiving the injury.

"In dissection wounds the constitutional symptoms and the local affection vary considerably, both in intensity and extent. In some individuals the wound itself only inflames; in some the absorbents also become inflamed; and in others an abscess may form in the axilla without further mischief. These are the simple cases; but there are others of a more formidable character—cases where, in a few hours, without the local injury being of any extent or severity, indeed hardly perceptible, the constitutional symptoms are of so appalling a nature, that the vital powers are at once overwhelmed, and almost immediate death is threatened. In other cases, again, diffuse cellular inflammation occurs in the hand, the arm, the axilla, the side, or some other part of the body, giving rise to vast collections of pus and sloughing of the cellular tegument, and thus overpowering the constitution. Absorption of animal matter may also be attended by the appearance of vesicles containing fluid in various parts of the body.—It may also produce mortification of the injured parts—irritative fever, eruptions, diarrhœa, and general ill health."

With regard to the treatment of these injuries, Mr. Stafford remarks:—

"When signs of absorption have taken place, which will be known by the pain and inflammation of the wound, and whether the absorbents are inflamed or not, it would be advisable to rub the argentum nitratum on the cuticle, across the course of the absorbents, about two inches in breadth, and sufficient to blacken the surface. If the absorbents are not inflamed, its application should take place on the forearm, as near as possible to the hand; but if they are already inflamed, it should be employed immediately above the point to which the inflammation has extended. The next step will be, to evacuate freely the contents of the bowels. The part around the wound will now probably begin to swell. It must be immediately reduced by leeches, and their application must be repeated at each accession of inflammation, or non-reduction of it. Soothing fomentations also must be employed, and poultices, &c. to the wound. Attention to the constitutional symptoms will now be of the utmost importance. If there be, according to the severity of the case, extreme pain in the wound, violent pain in the head, the back, in the lumbar region, rigor, tremor, tetanic convulsions, and extreme nervous depression,—these symptoms should be immediately combated as soon as they arise; and from the results of the treatment adopted in Drs. Simms' and Moss' cases, under such circumstances, the muriate of morphia appears to allay them more than any other remedy. In these cases, the effect of this medicine was remarkable. Although Dr. S. was suffering the most excruciating agony in the back and finger, with all the symptoms above mentioned, yet the remedy had an immediate effect in producing composure, and keeping down the violence. It appears advisable, therefore, to administer it in such doses, and with such frequency as to keep the patient under the influence of its action.

"After the first shock the system has received from the introduction of the poison, fever will supervene. This symptom will be, perhaps, best treated by sudorifics, and the usual means employed under such circumstances. A question may now arise, whether general bleeding should be employed or not? There may be individual cases, where the patient is of so plethoric a habit, or so inflammatory a tendency, that the abstraction of blood may be required; but, generally speaking, it appears to me that it would be better to avoid it. In the first place, the nervous system has already been depressed by the introduction of the poison; in the second, the fever which is present cannot be considered simply of an inflammatory nature, but rather of an irritative kind; and in the third, although the present symptoms may be violent, yet perhaps from the formation of abscesses, and the general reduction of the patient, he will afterwards require as much of the restorative power as possible to recover his strength."

In many of Dr. Duncan's cases, in which the patients were bled, they never appeared to rally after the bleeding.

"Although it appears to me that general blood-letting is not advisable in most cases of injuries from absorption, (excepting under peculiar circumstances,) yet on the other hand I consider topical bleeding of the greatest consequence; indeed so important does it appear, that I feel persuaded that without its employment, when the inflammation of the hand and absorbents is very great, the patient has but little chance of recovery. Blood, therefore, should be abstracted by the repetition of leeches on the inflamed part, on any swelling arising from the wounds, along the course of the inflamed absorbents, and on the glands of the axilla, or any other part where their employment may be required."

In four of the cases recorded in the paper before us topical bleeding was employed, and in no one of them was there formation of pus in the axilla or the side.

"It not unfrequently happens, that in defiance of all our endeavours to prevent it, pus will be formed in the axilla, the side, or some other part. It now becomes a question of great importance in what manner a swelling, where such formation is suspected, ought to be treated? At first it will perhaps be extremely difficult to ascertain whether matter is formed or not, and at the same time the patient may be suffering from the tension of the part the most distressing symptoms. There may be great pain, depression, fluttering pulse, delirium, exhaustion, and general distress. Under these circumstances, whether pus is formed or not, the swelling ought to be opened; and as the chief object, if matter be not formed, is to relieve the tension of the part, the incision should be of considerable length."

In the case of Mr. Pierce the most alarming symptoms occurred, and even death was threatened from the distress the tension occasioned; as soon, however, as an incision was made into it, relief was obtained. Other cases are recorded by the writer of this paper, as well as by Drs. Duncan and Colles, and Mr. Travers, in which the importance of free incision into the swellings resulting from dissection wounds was very apparent. Life may no doubt in many cases be preserved by it.

"It is a remarkable fact, that in most of the cases related by Drs. Duncan, Colles and others, where a swelling or abscess took place without an opening having been made into it, the patients did not recover.—On the contrary, in those cases where openings were made, the patients lived.—The following inference, therefore, may fairly be drawn:—that free incisions made into swellings arising from the absorption of animal poison are attended by the most beneficial results, and that, from the facts now brought forward, they ought to be made in the earliest stage of their formation.

"The third stage of the treatment, when abscesses are discharging profusely, and the patient is reduced by the violence of the disease, consists in giving power and support to the constitution. Bark, wine, meat, porter, and nourishing diet of every description that the stomach can bear, and such as circumstances require, may be allowed. The abscesses and other symptoms may be treated according to the common principles of surgery. During the progress of the disease symptoms may arise, such as inflammation of the lungs, &c., which I have not mentioned. These can only be judged of by the attendant at the time, and should be treated accordingly."

5. *Account of a case of Fracture and Displacement of the Atlas.* By BENJAMIN PHILLIPS, Esq.—The patient slipped off a hay-rick and fell to the ground head foremost, the occiput coming in contact with the soil. The stunning effect or concussion resulting from the fall was soon sufficiently dissipated to allow of his walking half a mile to the residence of the parish surgeon, by whom he

was bled and purged. Next day scarcely any inconvenience was experienced from the accident, and in two days more he returned to his occupation.

"From the day succeeding the accident he felt what he termed, and what really was, "a stiff neck," for he was unable to rotate the head. This stiffness was all he complained of when Mr. P. first saw him, which was between three weeks and a month from the occurrence of the accident, and on that day he had walked above two miles."

He was a powerful, scrofulous-looking man, of thirty-two; had enjoyed usually good health. The only uneasiness he experienced, and that slight, was in the back of his neck. Immediately over the second cervical vertebra a small tumour was discovered, pressure upon which occasioned only a slight pain.

All the functions of the economy, with the exception of the inability to rotate the head, were well performed, and Mr. P. could discover no other lesion of motion or sensation. He presumed that a chronic inflammation of a scrofulous character was developed in the first or second cervical vertebra, or both, and that the articulating surfaces between them had been so modified as to threaten what is termed "false anchylosis."

In consonance with this diagnosis the patient was directed to lie upon a mattrass without a pillow, and twelve leeches were applied to the affected part every third day. The leeches were applied six times, but the only effect they produced was the removal to a great extent of the tenderness. Ten days subsequently to the last application of leeches an issue was made in the neck over the tumour, which continued to discharge for two months, when it was dried up. The tenderness remained unchanged, but almost entirely disappeared after the issue had cicatrized; the tumour still retained its original character. Another issue was formed in the fifth week from the period when the cicatrization of the first was decided on. Soon after this Mr. P. noticed, what may have existed previously, a *thickness* of the voice, such as is produced by enlarged tonsils. On examination he found the tonsils to be greatly enlarged, but presented no indications of recent disease. A few days subsequently the patient complained of some inconvenience in swallowing. Upon a careful examination of the throat a slight projection or fulness was discovered at the back of the larynx, as near as may be at the level of the body of the second cervical vertebra. Mr. P. concluded that an enlargement of the body of the axis had been produced, which occasioned the difficulty in phonation and deglutition.

The second issue had been discharging for about five weeks, when he became the subject of a severe attack of pleuritis, for which he was copiously bled; by this attack he was a good deal debilitated, and during its progress the issue was healed. Soon after this, about nine months from the accident, symptoms of anasarca were manifested, and the infiltration shortly became general. From the anasarcous affection he continued to suffer more or less, until the forty-seventh week from the injury, when effusion into the cavity of the thorax took place and the patient died.

"Up to the last week of his life he was accustomed to walk to the water-closet, which was on the same floor with his bed, and was never assisted in taking food, even though lying on his back; and no evidence was ever afforded to those around him that motion or sensation, with the exception already named, was in the slightest degree impaired, neither had the difficulty of swallowing materially increased."

Permission could be obtained only to examine the back of the neck.

"The condyles of the occiput still rested upon the articulating surfaces of the atlas, but the atlas was found to be, not a separate and independent vertebra, but an appendix to the axis. So much of its anterior portion, as includes the surfaces by which it is articulated with the occiput and with the axis, had been violently separated from the posterior portion of its ring, and had been carried in an oblique direction downwards and forwards, until it arrived upon the same plane, but anterior to the axis, to the body and transverse processes of which it became attached by perfect bony union, whilst the posterior fragment had suffered no displacement. Under these circumstances the bone presented two spinal foramina, and four transverse, but no odontoid process. This organ having been fractured and separated; no organ passed through the anterior spinal foramen."

A notice is presented of two cases of fracture of the atlas recorded by Sir A. Cooper. In two points of view the case before us is not wanting in importance;

"As an example, namely, of the extent of injury which may be experienced by this portion of the spinal column, without harm to the important organ whose natural protector it is, or even to the economy: and as a reason for rescinding the dicta that 'a fracture of the processus dentatus proves instantly fatal,' and 'that a fracture of the cervical vertebræ, above the third, with considerable displacement, is almost immediately fatal.' "

6. *Some particulars of a case in which the patient was saved from the destructive influence of opium, by artificial respiration.* By CHAS. I. SMITH, Esq., Assistant Surgeon in the Madras army.—The patient was a female, 25 years old. Four hours after she had become insensible from the effects of opium, her extremities were cold and livid; lips and face of a dark lead colour; the pulse fluttering and scarcely perceptible; the respiration three or four times in a minute, with sighing. The stomach was carefully washed out by means of the stomach pump, after which small quantities of ammonia combined with brandy were injected. The spasm of the œsophagus was so great, on attempting to introduce the tube of the stomach pump, as nearly to destroy it. The scalp was next entirely denuded of its hair, and several buckets of cold water were poured in rapid succession over it, the nostrils being at the same time stimulated with ammonia. The scalp was now rubbed with liq. ammonia, until the whole of it was vesicated. All these means produced, however, but little or no effect in rousing the patient from her state of stupor. The pulse had entirely disappeared at the wrist, and only a slight irregular action of the heart indicated that life was not quite extinct. It was now determined, as the only remaining chance, to try the effects of artificial respiration.

The mouth and one nostril being closed, a pair of common bellows was applied to the other nostril, and the chest was in that way inflated, and alternately emptied by pressure on the chest and sides. This was continued for an hour, without intermission, at which time the heart seemed to be rallying, but if left to itself it rapidly sunk again. An ounce of the ol. terebinth. was injected into the rectum; bottles of hot water were applied to the chest, and sinapisms to the feet and legs."

This treatment was continued for about two hours and a half, with only slight intermission. The patient at this time was so evidently rallying, that it was deemed safe to leave her. At the termination of another hour she was found relapsing into her former state. Artificial respiration was again resorted to, and continued for two hours. The pulse had then become regular, and the patient made slight attempts to move, and showed evidence of pain when pinched. She became eventually well, and has since been married.

"It was curious to see the effects of artificial respiration in this case. The livid colour of the face and extremities, rapidly giving way to a more florid hue on every inflation, and again as rapidly returning to its original colour on being left for a few minutes."

7. *Remarks on two forms of atrophy of the heart's valves, which interfere with their function: founded on a series of cases.* By P. N. KINGSTON, M. D.—The first of these lesions is "a simple shortening of the heart's mitral or tricuspid valve, without any diminution of its natural thinness, pliancy and transparency: the orifice to which it belongs possessing at least the ordinary calibre. In other words, it is an atrophy of the valve in the direction of its length." In one case, the length of the superior lamina of the mitral valve, which is naturally from seven to nine lines, was reduced to three; in another it no where exceeded a

line and a half, and was for the most part only a line. The laminæ of the tricuspid valve are naturally from eight to eleven lines in length; but in one case they all three fell very far short of this, and one was only three lines. The valves in question are also generally thinner than natural.

The other lesion nearly allied in its nature and effects to the foregoing, consists in the continuity of the valve being interrupted by apertures, sometimes of large size, and sometimes so numerous as to reduce the structure to a mere net-work, while the remainder is in a state of attenuation, which is here and there often extreme, especially toward the edges of the apertures. Sometimes a large gap is seen, subdivided only by a few thready fibres. These, in the case of the auriculo-ventricular valves, are generally prolongations from chordæ tendinæ.

"It now and then happens that valves which have become thickened and indurated in various ways, are shortened or cribriform."

Dr. Kingston considers that these lesions are far from being rare lesions in comparison with the others to which the heart's valves are subject. The reason they have been so much overlooked is from their being above all others likely to elude observation, until the attention has been once directed to them. If the valves are lying down against the side of the ventricle or artery without any deviation from the natural appearance except a diminished extent of surface, this defect may easily escape notice. It is indeed often necessary, before it can be accurately ascertained, to cut the chordæ tendinæ and lift up the valve under examination.

Both the lesions described prevent the valve from closing completely the orifice to which it belongs; and hence it permits that regurgitation which it was placed to prevent. The effect must be obviously to weaken the force with which the blood is propelled through the arterial system, and to favour its accumulation posteriorly to the affected valve. This will be in a great measure proportioned to the extent of the valvular deficiency and to the size of the corresponding orifice. When dependent on shortening it will also be liable to increase from bodily exertion, mental emotions, and other causes by which the heart's action is stimulated.

"From this disablement of the valve will hence arise a strong tendency to dilatation or hypertrophy of those parts of the heart posterior to the valve affected; palpitation, venous congestions, anasarca, and effusion into the serous cavities; and where the mitral or aortic valves are defective, to dyspnœa and cough, to pulmonary congestion and inflammation, and to some of those symptoms which are apt to arise from deficient and irregular supply of arterial blood to the head and remote parts of the body. At the same time it may be presumed that the degree of tendency to the production of these affections, is less than that of those diseases of the valves, which not only permit regurgitation, but likewise by narrowing the orifice, obstruct the passage of the blood in the natural direction.

"These two species of atrophy sometimes co-exist or are combined with other defects of the valve or its orifice: and then, though each be slight, their united influence may be considerable."

In all the cases adduced by Dr. K. in which the circumstances are fully detailed, there had been anasarca and palpitations; and in all but one, dilatation of some cavity posterior to the affected valve. In all in which the valves of the left side were defective, there had been dyspnœa and cough, pulmonary congestion and inflammations; the radial pulse and the precordial impulse were frequently irregular and unequal; and out of the only four of these cases in which the history is sufficiently known, one patient was very subject to attacks of faintness and debility, another to vertigo and epileptic fits, a third died in a fit of syncope, and the fourth, after total sleeplessness for a fortnight, sunk into a state of coma, which was fatal in a few hours. Where the defect lay in the mitral valve, the pulse at the wrist, compared with the beat at the heart, was generally small and weak; and where in the tricuspid, there was distension, sometimes attended with pulsation of the external jugular veins; in those cases, at least, in which they were examined. In several, the symptoms could not have been fully accounted for, had these valvular lesions been overlooked.

"Further experience is required to show with precision, by what modifications of the heart's sounds these defects are characterized. But I am satisfied, says Dr. R., from the stethoscopic examinations which I made, and from many analogous instances of simple regurgitation, that a bellows sound is often produced during the reflux of the blood through the affected valve."

"The discrimination of these from the other lesions of the valves is a point of great nicety, on which Dr. K. is not yet fully prepared to speak."

It is possible these defects may now and then be congenital; but according to Dr. K. there are the strongest reasons for believing that in the greater majority of cases they occur subsequent to birth. In considering their causes, Dr. K. esteems the supposition of their being the result of ulceration, as highly improbable. In all the cases the valves presented appearances exactly opposite to those which attend ulceration: they were thinner, more pliant, and more transparent than natural, and the attenuation gradually increased towards the edges of the perforations. Appearances which are most characteristic of those species of absorption unattended with suppuration.

"Of these two species of absorption the apertures can of course be ascribed only to the progressive; and in two cases, at least, in which the valves were both shortened and cribriform, the shortening was most likely produced by the same process as the apertures, by a progressive absorption of a portion of the valve at its free edge.

"The remote causes of these lesions remain to be investigated. In nine out of the ten instances in which the mitral or tricuspid valve was shortened, there was hypertrophy of the corresponding ventricle, which is in general preceded, as well as attended, by an increased force of the heart's contraction. In several, there was likewise obstruction to the discharge of the blood from the hypertrophous ventricle. In most, the patients had followed laborious occupations; and two traced their complaints in a great measure to over-exertion.

"In these nine instances, therefore, the blood's impulse against the valve affected had been permanently increased, and the valve had hence been subjected to an unnatural degree of pressure, an agent very frequently observed to occasion the atrophy of almost every tissue and organ in the body."

To prove the latter proposition Dr. K. adduces numerous facts.

"There can, therefore, he concludes, be no doubt that in the cases at present under consideration, the undue force of the blood's impulse against the valves may have been powerfully instrumental in promoting their atrophy. It could not, however, have been singly sufficient; for in some cases it has not at all impeded their nutrition, and in others it has been followed by an opposite change to that now considered."

"The undue force of the blood's impulse, therefore, in order to atrophize the valve, must have been assisted by some other cause. In the nine cases at present under review, the only cause that can be supposed is a debility of the valve's nutritive powers, in consequence of which its nutrition was obstructed by a degree of pressure which, had these been vigorous, they would have been able to withstand."

"In five out of the nine cases, marks of chronic disease were exhibited either by the pericardium, by some of the other valves, or by the inner membrane of the heart or aorta. In these five the valvular atrophy was probably consecutive on disease, with which the valve had been affected at the same time."

As our desire is to present to our readers with merely a brief outline of the author's views, we pass over the arguments and illustrations by which these are enforced.

In regard to the causes of the cribriform atrophy, of which there were five cases, in one of which the pulmonary and aortic valves were both affected; and in two the auriculo-ventricular valve was shortened as well as cribriform.

"One of these patients had been very subject to gout and to precordial palpitations; and two had had several attacks of acute articular rheumatism, attended with well marked symptoms of inflammation of the heart; and, after death, exhibited old adhesions of the pericardium, and disease of some of the valves similar to that which is known to be consequent on rheumatic affection of the valves."

Dr. K. next attempts to show that gout and rheumatism are liable to so impair the nutritive powers of a part, in particular constitutions, as to render it liable to be absorbed, under the degree of pressure to which it is naturally subjected, and still more certainly when subjected to an augmented pressure.

In two of the three cases particularly referred to, the heart's muscular substance presented a singularly pale, friable, flabby condition, unequivocally proving extreme languor of nutrition; and in one of these, there was a deposition of fat by the side of the cribriform valve, strengthening the analogy between this atrophy and the atrophies of other organs depending on failure of nutrition. In the remaining two of the five cases, the cribriform atrophy was referable to the same causes as have been assigned for the shortening.

"From what has been said of their causes, we may expect to diminish the frequency and severity of these lesions by avoiding those circumstances which are known to encourage inordinate action of the heart, and by studying to prevent the metastasis of gout and rheumatism of the heart, and to improve its treatment when it occurs."

"The diagnosis of these lesions, even so far as to know that there is *some* valvular defect obstructing the circulation, will be highly advantageous to the patient. If the lesion be undetected, the symptoms will be supposed to indicate some other disease, as hysteria or dyspepsia; and hence a wrong opinion will be pronounced in regard to the future progress and the termination of the case; and, what is more material, the appropriate remedies will be neglected, while others, calculated perhaps to injure the constitution and increase the real disease, will be exhibited.

"It is generally agreed that, in valvular disease, the more distressing and fatal symptoms with which it is often attended, do not occur until the supervention of hypertrophy and dilatation. By a judicious employment of remedies, and regulation of the patient's habits, these consequences may often be warded off for a long term of years. The means adapted to this end need not for the most part be specified, as they are identical with the palliative treatment of the other purely mechanical valvular lesions. But," Dr. K. remarks, "while great muscular exertion is of all things the most injurious, a good deal of very gentle exercise, by determining the blood to the remote parts, and relieving the heart and great vessels of their distension, is in many cases highly beneficial."—"It is not unlikely, that if the heart's action can be kept tranquil, and the quantity of the circulating fluid be reduced, the orifice and cavities to which the defective valve belongs, may gradually diminish in calibre, so as to become adapted to the altered size of the valve."

8. *A Case of unusual Dislocation of the Thigh-bone, with observations.* By Benj. Travers, Jun.—In this case the thigh-bone was dislocated upwards. It occurred in a sailor 19 years of age, who fell into the hold of a ship, the left buttock striking upon a coil of chain cable, from a height of about twenty feet.

The limb, on raising him, was immoveable, everted and considerably shortened; a complete retention of urine followed the accident, but the bladder recovered after the lapse of two days, though the secretion remained turbid for some time. He landed in England four months after the accident, when two attempts were made to reduce the limb without success. He states that he met with many severe falls on first attempting to move from his hammock, at the distance of eight weeks from the time of the injury. He used to slip up and tumble backwards, with the leg of the affected side under him. Eight months from the occurrence of the dislocation the appearances were as follows:

"The left buttock is flattened; the trochanter is felt rather below, and to the outer side of the anterior and superior spinous process of the ilium. The neck of the bone lies apparently between the two anterior spinous processes, so that, when the patient is erect, the limb appears slung or suspended from this point. The head of the bone cannot be felt; it is invested by an abundance of bony matter, which extends backwards and inwards over the brim of the pelvis and iliac vessels, occupying in front, nearly the whole space between the inferior spine of the ilium, and that of the pubis, respectively. There is complete eversion; slight mobility; and imperfect progression with the aid of a crutch."

From the space we have already occupied, we regret to find that we shall be unable to conclude our notice of the volume before us, in the present number. We shall, therefore, close here for the present; deferring until our next an account of the remaining papers, many of which are extremely valuable, and claim a somewhat extended analysis. D. F. C.

ART. XVI.—*Recherches sur l'Emphysème des Poumons.* Par M. Louis, Médecin de la Pitié, Member de l'Academie Royale de Médecine, &c. &c. *Researches upon Emphysema of the Lungs.* By M. Louis, Physician of La Pitié, Member of the Royal Academy of Medicine, &c. &c.

The above essay forms part of the memoirs of the "Medical Society of Observation" of Paris, the first volume of which has just appeared. Previous to the time of Laennec, pulmonary emphysema was almost unknown, and even since that period but little has been done to improve its history as given to us by that author. The work now before us, however, contains much new and valuable matter, and gives to the subject great additional interest and importance. The author's conclusions are based upon an examination of the histories of ninety cases of the disease, the greater part of which were observed by himself in the hospital of La Pitié. For some of them he is indebted to our countryman, Dr. J. Jackson, jun., of Boston, who, when in Paris, devoted much of his time to the investigation of this subject. Dr. Louis has published only a few of these cases in detail, but has given us a strict analysis of the whole. He has advanced but little that was not directly deducible from the facts before him, and based upon numerical data. This method of analysing medical cases may be said to have originated with him, and through its means the general results of clinical observation have assumed a high degree of accuracy to which otherwise they never could have attained. This system, although strongly opposed by many, is gradually gaining ground, as will appear by referring to several recent publications. It has been adopted by Andral in the last edition of his Clinique, as well as by Chomel. Even Bouillaud has given in his adhesion, and undertaken its defence in a late work, entitled "An Essay on Medical Philosophy, &c." We only regret that his feelings did not allow him to give to Dr. Louis the credit of being the first to carry out this system in practice, and urge its claims upon the attention of medical men.

Our author first gives a general description of the disease and of the appearances after death. He then proceeds to a separate consideration of each symptom and lesion, establishes the diagnosis, and concludes with some observations upon the causes, the frequency and the treatment of the disease.

We shall first consider his account of its

Anatomical characters. These are derived from the examination of the bodies of forty-two patients who died, more than half of whom were victims of the cholera. That portion of the lungs which was the seat of the disease, i. e. of the dilatation of the vescicles, was found to yield less easily to pressure than in the